



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 0 986 280 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
24.01.2001 Bulletin 2001/04

(51) Int. Cl.⁷: **H04Q 7/38**

(43) Date of publication A2:
15.03.2000 Bulletin 2000/11

(21) Application number: **99117560.5**

(22) Date of filing: **06.09.1999**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **07.09.1998 JP 25299398**

(71) Applicant:
**MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.
Kadoma-shi, Osaka 571-8501 (JP)**

(72) Inventors:
• **Kayama, Hidenori**
Yokosuka-shi, Kanagawa 239-0847 (JP)
• **UE, Toyoki**
Yokosuka-shi, Kanagawa 239-0847 (JP)

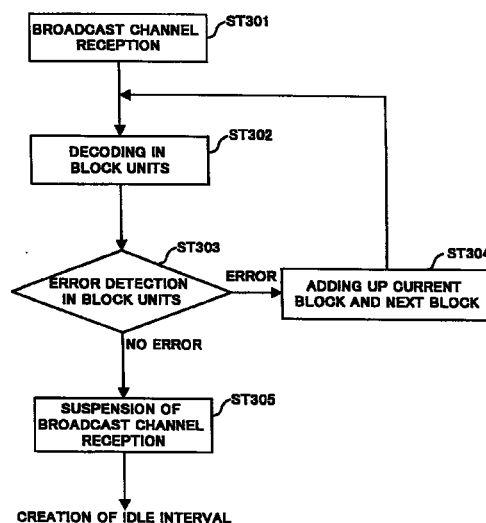
• **Miya, Kazuyuki**
Kawasaki-shi, Kanagawa 215-0021 (JP)
• **Kitade, Takashi**
Yokosuka-shi, Kanagawa 239-0847 (JP)
• **Uesugi, Mitsuru**
Yokosuka-shi, Kanagawa 238-0048 (JP)
• **Kato, Osamu**
Yokosuka-shi, Kanagawa 237-0066 (JP)

(74) Representative:
**Grünecker, Kinkeldey,
Stockmair & Schwanhäusser
Anwaltssozietät
Maximilianstrasse 58
80538 München (DE)**

(54) **Mobile station apparatus and base station apparatus with improved broadcast method**

(57) The base station apparatus compresses one-frame information of a broadcast channel to blocks of 1/2 of one frame or less and repeatedly sends this block in a one-frame time. The mobile station apparatus decodes the received signal in block units or added block units to carry out error detection. The mobile station apparatus receives and adds up the next block in the case that the error rate exceeds a threshold. The mobile station apparatus repeats this until the error rate falls below the threshold. When the error rate falls below the threshold, the mobile station apparatus stops reception of broadcast channel signals and uses the rest of time until a one-frame time elapses to monitor carrier information of a different mobile communication system for handover.

FIG. 6



EP 0 986 280 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 11 7560

DOCUMENTS CONSIDERED TO BE RELEVANT					
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)		
Y	WO 97 40592 A (ERICSSON) 30 October 1997 (1997-10-30) * page 7, line 15 - page 15, line 32; figures *	1-4,6-9	H04Q7/38		
Y	WO 86 03317 A (ERICSSON) 5 June 1986 (1986-06-05) * page 4, line 16 - page 8, line 12; figures *	1-4,6-9			
A	WO 97 09831 A (MOTOROLA) 13 March 1997 (1997-03-13) * page 3, line 19 - page 12, line 33; figures *	2-9			
A	WO 96 13914 A (POWER SPECTRUM TECHNOLOGY) 9 May 1996 (1996-05-09) * description; figures *	2-9			
A	WO 94 29981 A (ERICSSON) 22 December 1994 (1994-12-22) * page 8, line 1 - page 12, line 19; figures *	1,6			
A	EP 0 652 650 A (NTT) 10 May 1995 (1995-05-10) * page 5, column 7, line 30 - page 8, column 14, line 31; figures *	1,6			
E	EP 0 981 256 A (FUJITSU) 23 February 2000 (2000-02-23) * page 5, column 7, line 23 - page 8, column 14, line 24; figures *	1-9	<table border="1"> <thead> <tr> <th>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</th> </tr> </thead> <tbody> <tr> <td>H04Q H04L</td> </tr> </tbody> </table>	TECHNICAL FIELDS SEARCHED (Int.Cl.7)	H04Q H04L
TECHNICAL FIELDS SEARCHED (Int.Cl.7)					
H04Q H04L					
The present search report has been drawn up for all claims					
Place of search THE HAGUE		Date of completion of the search 1 December 2000	Examiner Geoghegan, C		
<table border="0"> <tr> <td> CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document </td> <td> T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document </td> </tr> </table>				CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document				

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 11 7560

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

01-12-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9740592 A	30-10-1997	US 5896368 A	20-04-1999
		AU 724048 B	07-09-2000
		AU 2718397 A	12-11-1997
		BR 9708730 A	03-08-1999
		CA 2252382 A	30-10-1997
		CN 1225764 A	11-08-1999
		EP 0895675 A	10-02-1999
		JP 2000509573 T	25-07-2000
WO 8603317 A	05-06-1986	SE 445686 B	07-07-1986
		AU 579698 B	08-12-1988
		AU 5200786 A	18-06-1986
		CA 1263708 A	05-12-1989
		DE 3573335 D	02-11-1989
		EP 0203139 A	03-12-1986
		FI 862893 A, B,	09-07-1986
		JP 62500904 T	09-04-1987
		SE 8405958 A	27-05-1986
WO 9709831 A	13-03-1997	US 4759022 A	19-07-1988
		BR 9610449 A	08-06-1999
		CN 1195450 A	07-10-1998
		EP 0848887 A	24-06-1998
		JP 11512268 T	19-10-1999
		US 5805980 A	08-09-1998
WO 9613914 A	09-05-1996	IL 111340 A	16-08-1998
		AU 4004295 A	23-05-1996
		CA 2200978 A	09-05-1996
		EP 0787386 A	06-08-1997
		AU 4004195 A	23-05-1996
WO 9429981 A	22-12-1994	IL 111340 A	16-08-1998
		AU 4004295 A	23-05-1996
		CA 2200978 A	09-05-1996
		EP 0787386 A	06-08-1997
		AU 4004195 A	23-05-1996
		AU 674241 B	12-12-1996
		AU 7013094 A	03-01-1995
		BR 9405405 A	08-09-1999
		CA 2141446 A	22-12-1994
		CN 1112384 A	22-11-1995
EP 652650 A	10-05-1995	EP 0647380 A	12-04-1995
		FI 950627 A	13-02-1995
		JP 8500475 T	16-01-1996
		NZ 267748 A	26-11-1996
		US 5533014 A	02-07-1996
EP 652650 A	10-05-1995	JP 3003839 B	31-01-2000
		JP 7312783 A	28-11-1995
		CA 2134901 A	09-05-1995

EPO FORM P0489

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 11 7560

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

01-12-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 652650 A		CN 1113369 A	13-12-1995
		KR 131036 B	21-04-1998
		US 5586113 A	17-12-1996
		US 5734648 A	31-03-1998
EP 981256 A	23-02-2000	JP 2000069525 A	03-03-2000

EPO FORM P4459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82